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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,498	04/04/2001	Loralei Marie Brandt	J6497(C)	3031

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EXAMINER

YU, GINA C

ART UNIT PAPER NUMBER

1617

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/826,498	Applicant(s) BRANDT ET AL.	
	Examiner Gina C. Yu	Art Unit 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on October 6, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-25 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-25, 27-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 6, 2004 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19-25 and 27-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "less than about" in claims 19 and 27 render the claims vague and indefinite because the metes and bounds of the scope of the limitation are not clear. For example, the scope of the term "about 1.5 %" is flexible and may be determined to be more or less than 1.5 %. The term "less than about" 1.5 % however, is not clear. The court in Amgen, Inc. v. Chugai Phar. Co., held that claims reciting "at least about" were invalid for indefiniteness where there was close prior art and there was nothing in the specification, prosecution history, or the prior art to provide any indication as to what range of specific activity is covered by the term "about." See 927 F.2d 1200, 18

USPQ2d 1016 (Fed. Cir. 1991). In this case, there is nothing in the specification or prior art to indicate what range is covered by the term "about", and the cited reference Peffly (US 5985294) teaches using 1.5 % of holding polymer. The term renders the claims vague and indefinite, and the rejection is proper.

The remaining claims are rejected as depending on indefinite base claims.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 19-25 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peffly (US 5985294) in view of Samain et al. (US 6511651 B1) ("Samain") and Maurin et al. (US 6403542 B1) ("Maurin").

Claim 19 requires 0.04-1.5 % of (a) a polymer comprising vinyl caprolactam, methacrylamidopropyl dimethylamine, vinylpyrrolidone monomers; and (b) hydroxyethyl cellulose in alcoholic carrier chosen from methanol, ethanol, N-propanol, isopropanol, or the mixture thereof; wherein the ratio of the polymer and hydroxyethyl cellulose is 1:2.2 to 1:0.2.

Claim 27 requires 0.04-1.5 % of (a) a polymer comprising methacrylamidopropyl dimethylamine, vinylpyrrolidone monomers; and (b) chitosan in alcoholic carrier chosen from methanol, ethanol, N-propanol, isopropanol, or the mixture thereof; wherein the ratio of the (a) and (b) polymers is 1:2.2 to 1:0.2.

Peffly teaches hair styling gel composition comprising 3 % by weight of PVP/VA copolymer (50 % active) and 1 % by weight of hydroxyethyl cellulose, the ratio of the

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holding copolymer to hydroxyethyl cellulose is 1: 0.66, which meets the weight ratio limitation of two hair holding polymer of instant claims, claims 19 (c) and 20-22. See Example III. The reference also teaches that the total amount of hair styling polymer is preferably from about 0.5-10 % by weight, and teaches using ionic and nonionic polymers or the mixtures thereof. See col. 3, lines 33 – 60. Hydroxyethyl cellulose is a preferred nonionic polymers. See col. 4, lines 50-59. As for claims 23-25, examiner views that optimization of the weight ratio of two hair holding polymers is within the skill of the art because the Peffly generally teaches weight amount of the holding polymers to formulate hair styling compositions. The reference teaches that the total amount of the holding polymers is preferably as little as 0.5 %; and Example III shows the weight ratio of vinylpyrrolidone copolymers to hydroxyethyl cellulose at 1:0.66.

As for claim 27, vinylpyrrolidone/methacrylicamidopropyl dimethylamine acrylate copolymer (Styleze CC-10 from ISP) is taught as one of the preferred nonionic polymers. See col. 4, lines 50-59; instant claim 27. Chitosans are taught as a preferred hair styling polymers. See col. 4, lines 16-19. The weight ratio of two hair holding polymers are taught in Example III.

While Peffly teaches vinyl caprolactam/pvp/dimethylaminoethyl methacrylate copolymer, the reference fails to teach a terpolymer having vinyl caprolactam/pvp/methacrylamidopropyl dimethylamine.

Samain teaches that vinyl caprolactam copolymers such as ACP 1189 of ISP, which is a terpolymer of polyvinylpyrrolidones, vinyl caprolactam, and

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dimethylaminopropyldimethylamine are well known hair fixing polymers See col. 3, lines 42 – 60.

Maurin teaches a composition comprising vinyl caprolactam cationic copolymers also comprising vinylpyrrolidone and methacrylamidopropyldimethylamine such as ACP1189 from ISP. See abstract; col. 3, lines 48-51.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Peffly composition by substituting the PVP hair holding polymers with the terpolymer of vinyl caprolactum as motivated by Samain and Maurin because 1) Peffly teaches copolymer comprising vinyl lactum monomers and/or PVP; 2) Samain and Maurin teach that the vinyl caprolactam/pvp/methacrylamidopropyl dimethylamine is a well known hair styling polymer; and 3) the skilled artisan would have had a reasonable expectation of successfully producing a similar hair styling composition.

Response to Arguments

Applicant's arguments with respect to claims 19-25, 27-30 have been considered but are moot in view of the new ground(s) of rejection in part and unpersuasive.

Applicants argues that the reference fails to teach obtaining "effective curl retention" by using a low level of holding polymers in a certain ratio, it is respectfully pointed out that the claimed invention is a composition wherein the motivation of making the prior art composition does not have to be the same as applicants. Furthermore, since the reference teaches using as little as 0.5 % of the total holding polymers, it is expected that using that amount of holding polymer(s) still produces satisfactory hair

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styling properties. Applicants' assertion that the range of hair styling polymer is "extremely broad" is unpersuasive because the reference in fact teaches using 0.5-10 % of the holding polymers.


Conclusion

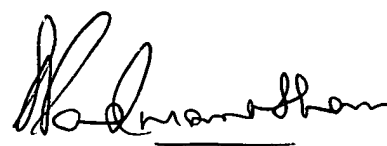
No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gina C. Yu whose telephone number is 571-272-0635. The examiner can normally be reached on Monday through Friday, from 8:30 AM until 6:00 PM..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Gina Yu
Patent Examiner


SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER